## Abstract

The invention relates to an image processing system for omnidirectional reading of optical patterns, for example of one-dimensional and two-dimensional codes.

One object is to provide an image processing system which ensures high resolution with rapid processing at the same time in order, in particular, to allow processing in video real time and to provide reliable identification of the image information, in particular reliable and low-error edge detection, segmentation and object association.

According to the invention, this is achieved by the use of a plurality of convolvers, which operate in parallel and/or using the time-division multiplexing method, for convolution of the digital image data, of a neighborhood processor (90) for reading and linking contour points (22), and/or of a statistical processor for reading a segment list.

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